



# Modernizing Vehicle Design & Manufacturing

INVESTOR PRESENTATION | JULY 2020







# A Radically Simplified EV Manufacturing Platform

Compared to EVs of the same size, Aptera's technology platform produces electric vehicles that are:

**1/2**

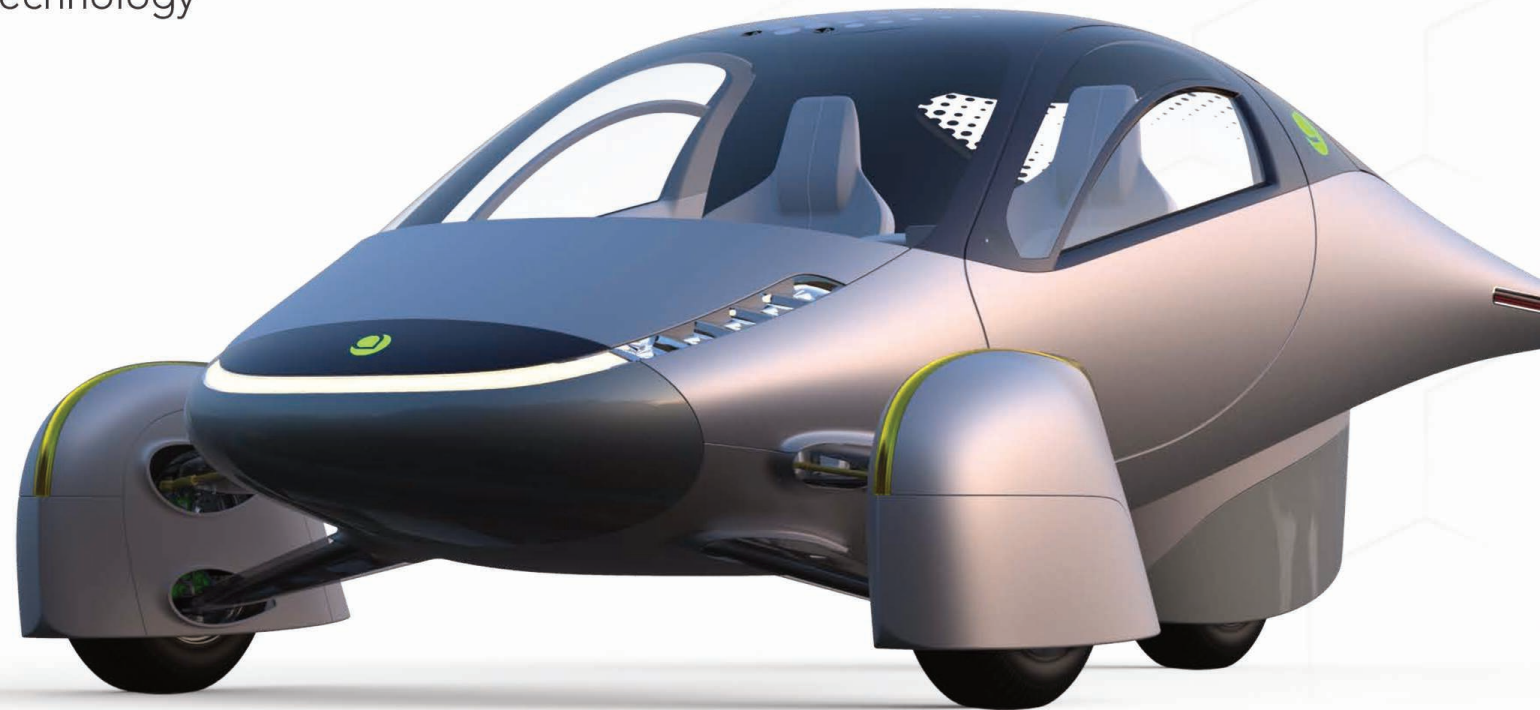
THE COST TO BUILD

**3x**

MORE EFFICIENT

**100%**

SAFE & RELIABLE



Aptera's Roadster. Shipping Q2 2021.



# Aptera's Technology Breakthroughs Solve "The Tesla Problem"



## DETROIT'S LEGACY

115+ YEARS

- Steel chassis
- Formed body panels
- Long assembly lines



## TESLA'S INEFFICIENCY

15+ YEARS

- Twice the labor of Detroit
- Similar car/factory design
- Requires even more factory space



## APTERA PLATFORM

PRESENT

- Lower manufacturing costs
- Rapid & inexpensive scaling
- Reduced part count
- Less labor and less space



# Aptera's Platform Supports a Robust EV Pipeline



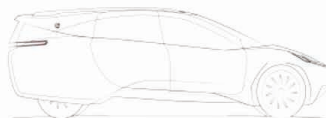
**ROADSTER**

Q4 2020



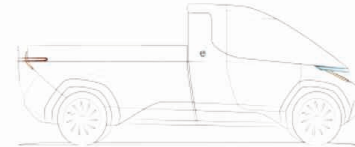
**SEDAN**

2021



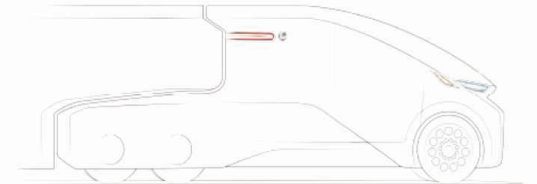
**CROSSOVER**

2022



**UTILITY**

2022



**SEMI**

2023



**LESS ENERGY PER MILE**



**LOWER COST TO BUILD**



**LOWER COST TO OWN**



**JUST AS SAFE**

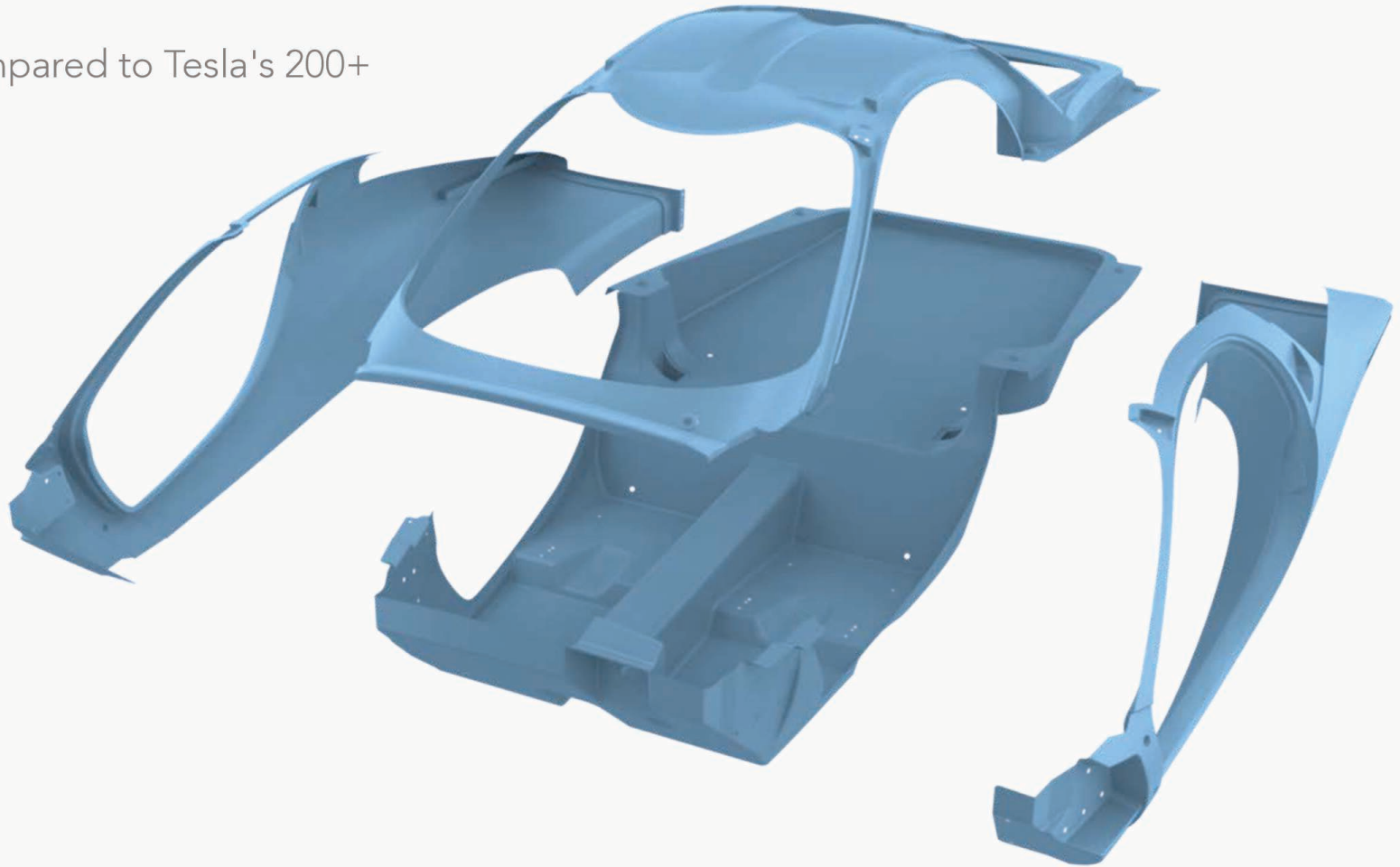




# Lower Manufacturing Costs

Aptera has only 4 key structural parts, compared to Tesla's 200+

- Inexpensive and simple tooling
- Fewer robots
- Fewer people
- No welds

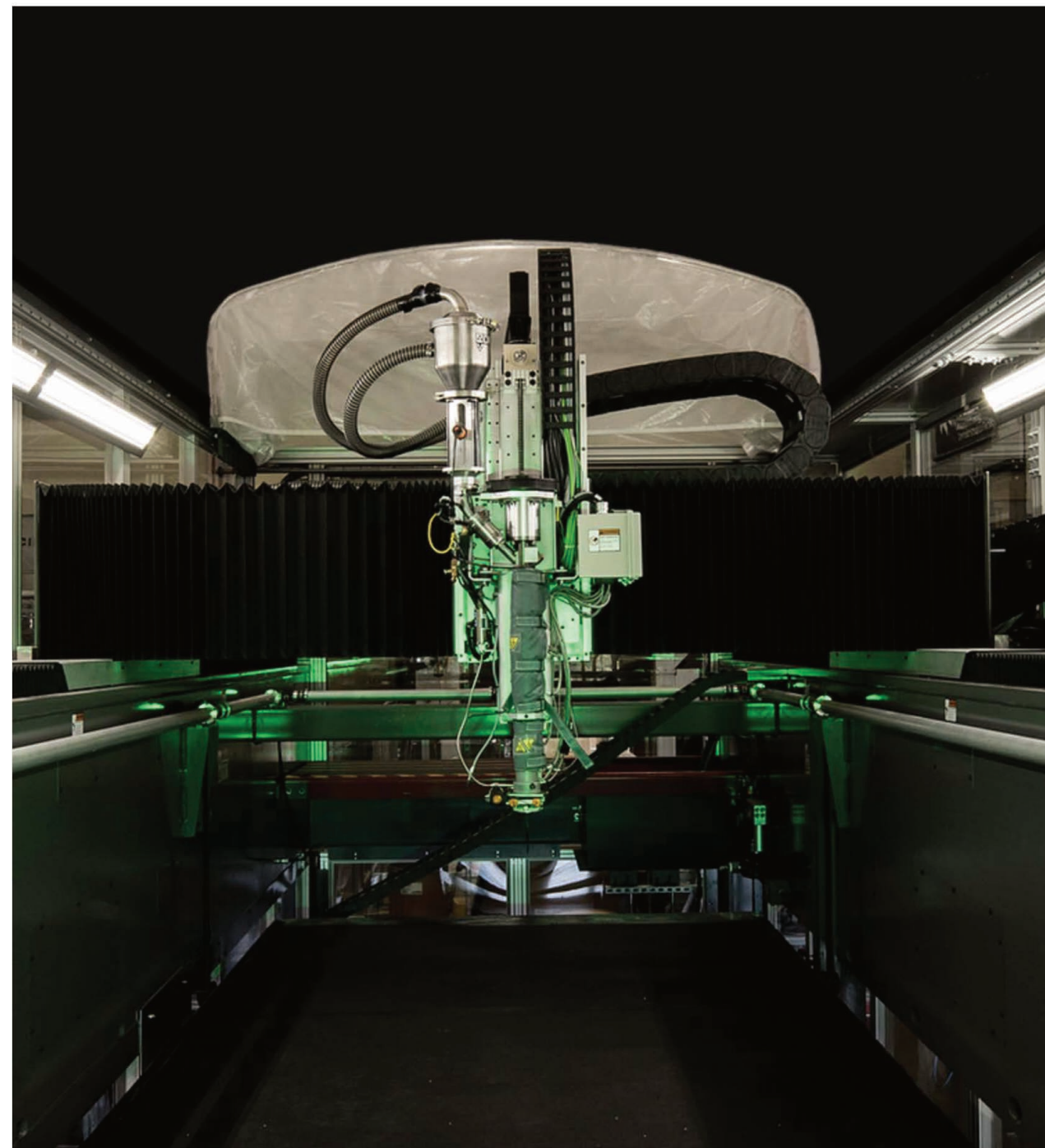




# Rapid and Inexpensive Scaling

Aptera's Additive Manufacturing strategy gives us the advantages of 3D printed tooling versus milled and finished metal tools.

**10x LESS EXPENSIVE  
& 10x FASTER TO BUILD**







# Efficient Powertrains

In-wheel motors are easier to install and service

**HIGHER TORQUE PERFORMANCE & 30%  
MORE EFFICIENT THAN WHAT OTHER EVS USE**



# Aerodynamic & Lightweight Design

The lowest drag of any production vehicle, ever.

## APTERA VS OTHER SMALL EVS

- 3x less drag
- 50% lighter
- Just as fast
- Just as safe







# Aptera Roadster's Range is Greater Than 1,000 mile

- Lightweight and low drag
- 0-60 mph in less than 4 seconds
- 3x – 4x more range than other EVs

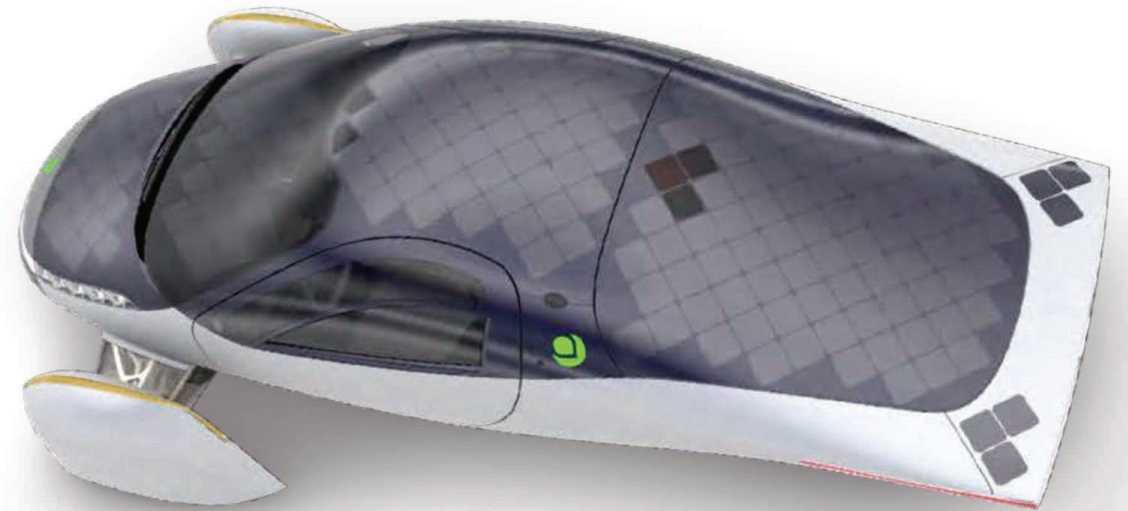




# Solar Power is Integral to the Platform

It provides power to drive more than 11,000 miles per year

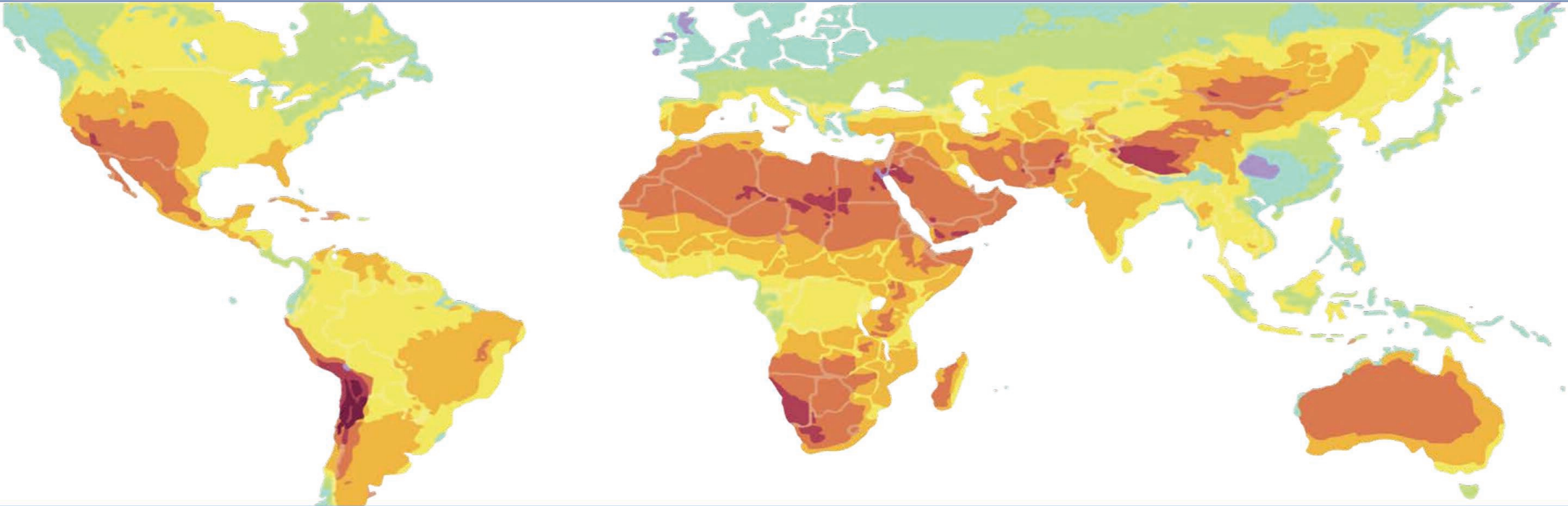
- Most drivers will never have to charge their EV
- Three utility patents pending along with one design patent pending
- Removes the EV recharge barrier for most of the US and European population







# Extreme Solar Range

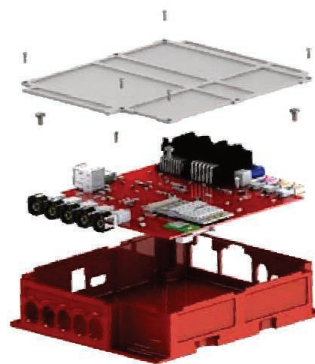
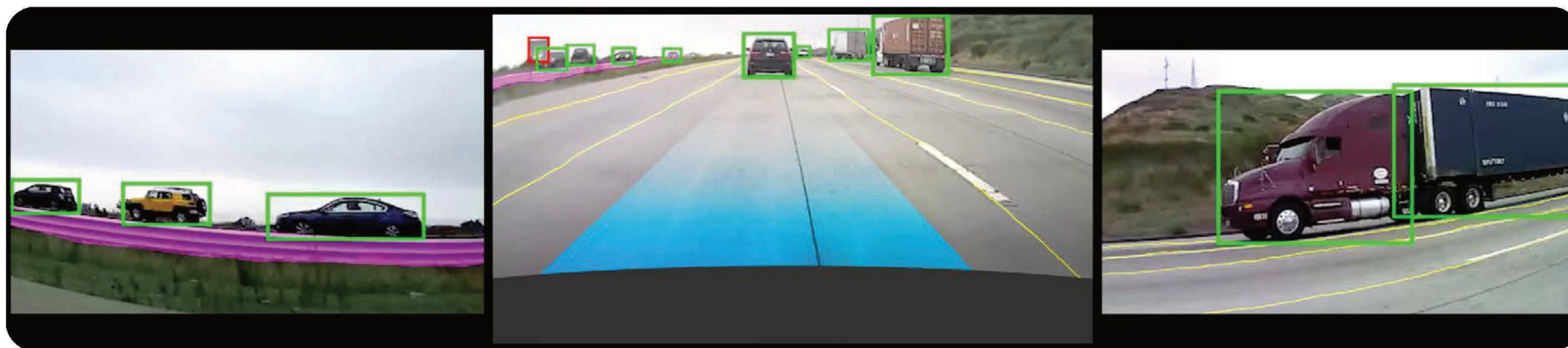


Miles per Day		<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>
	Max	29.2	30.6	32.7	36.4	39.2	40.3	40.9	41.6
	Avg	19.65	20.85	22.15	24.5	26.15	28.4	29.75	31.4
	Min	10.1	11.1	11.6	12.6	13.1	16.5	18.6	21.2
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		7,228	7,668	8,120	8,870	9,599	10,479	10,924	11,484
SENTATION		Miles per Year							



# Driving Ease

1,000+ miles of range plus our advanced CoPilot will make long journeys a breeze.



Aptera's CoPilot-system hardware, developed in conjunction with a large Japanese OEM, means it can quickly compete in the autonomous-driving arena with Tesla, BMW, and Audi.

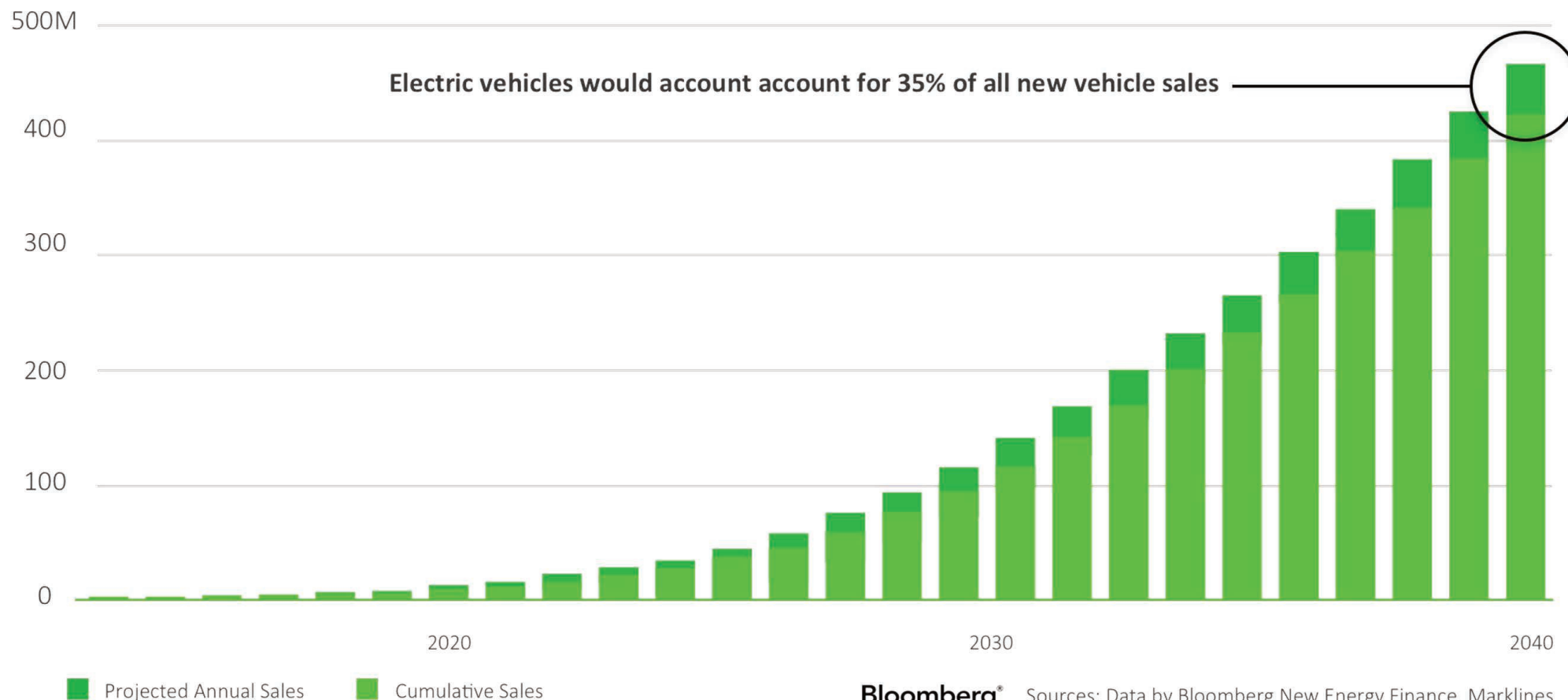




# Bringing Our Efficiency To Market

By 2040, electric vehicles will account for 35% of all new vehicle sales.

Aptera will introduce its commitment to efficiency with production of 10,000 units by 2022 and 40,000 by 2024.



**Bloomberg\***

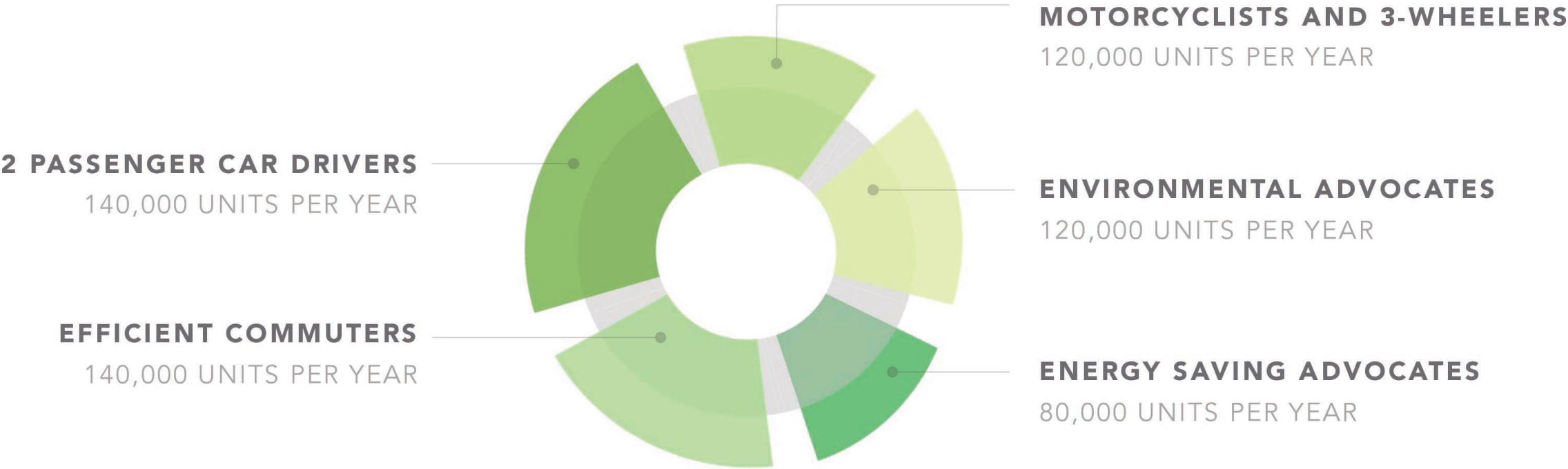
Sources: Data by Bloomberg New Energy Finance, Marklines

\*These are future projections and cannot be guaranteed



# Roadster Market Size

The total potential Roadster market is **600,000 units** per year, with sales ramping up to a rate of **10,000 units** per year in 2022.







# Scalable Distribution

Aptera's strategy leverages lessons from Tesla

- Direct-to-consumer sales
- Online promotion/test-drive scheduling & events in key markets
- Regional pre-delivery warehousing in leased facility requires little CAPEX
- Southern California rollout initially with Major Metro Areas soon after
- Mobile service house calls (a model proven globally by Tesla)





# Financial Projections

Aptera expects to realize margins of 35% by 2022

	2019	2020	2021	2022
Vehicles Sold (all models)	-	-	314	4,287
Revenue (in US \$1,000)	-	-	9,921	141,264
Costs of Goods Sold	-	-	6,465	92,233
Gross Margin	-	-	31%	35%
Operating Expenses	1,500	2,498	15,153	16,647
Net Profit	(1,500)	(2,498)	(14,560)	38,558

\*These are future projections and cannot be guaranteed

Roadster's initial target price is \$26,000 - \$50,000 with an initial target cost of \$21,000 - \$33,000.





# Funding

## **\$2.8 MILLION SEED FUNDING CLOSED Q2 2020**

This round finishes the design and construction of 3 development vehicles, moving us to production designing by the end of the year.

## **LOOKING TO CLOSE A \$25 MILLION SERIES A IN Q1 2021**

- This round starts Roadster production in North America and readies worldwide distribution
- Yields initial design for the Sedan
- Series B in Q3 of 2021

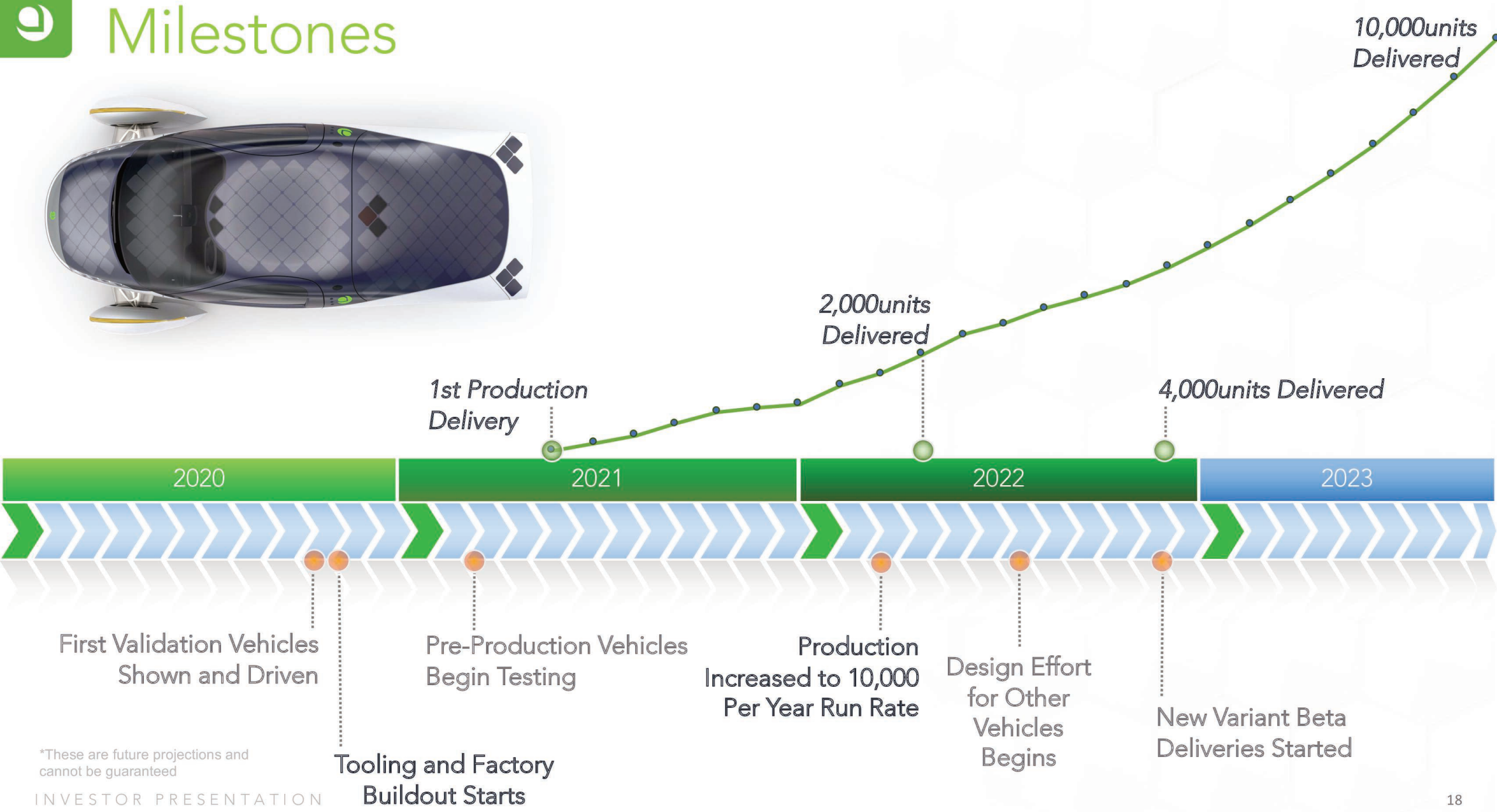
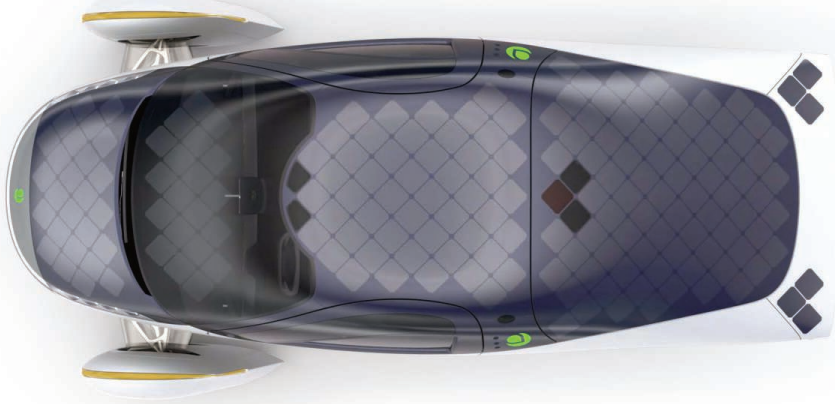
## **APPLICATION FOR DEPARTMENT OF ENERGY LOAN IN 2021**

This program still has \$17B allocated for such innovations.





# Milestones







# The Paradigm Shift Begins

When Aptera launches, we will be introducing two special limited editions:

- Paradigm Edition: built to be the Most Efficient Vehicle on the Road with 400mile range, Enhanced Audio, 100kW, Full Solar, and special Paradigm interior features (220 vehicles - first production run) Total Price: \$29,900
- Paradigm +: built to be the Most Efficient Vehicle on the Road with a full 1,000mile range, Upgraded Audio, 100kW, Full Solar, and special Paradigm interior features (110 vehicles - fourth production run). Total Price: \$44,900





# Thank you

MODERNIZING ELECTRIC VEHICLE DESIGN & MANUFACTURING





# The Team

Steve & Chris have built a team with a proven track record of creating revenue from efficiency.



Mercedes-Benz



illumina®



PORSCHE

SIEMENS



TOYOTA

FLUX







**CEO**

## Steve Fambro

- Venture partner and COO of Ocean Holding, an investment and development company dedicated to advancing the use of clean, renewable energy
- Founder of Famgro; raised \$8m to launch a super efficient pesticide/herbicide-free indoor food-production system. Built the world's largest advanced hydroponics farm (in nine months under budget and ahead of schedule). This facility alone saved four million gallons of water per year
- Lead electrical engineer for Illumina's initiative to build the most powerful DNA-synthesis robots in the world. Helped to create the world's largest DNA-synthesizing robot
- B.S.E.E., University of Utah
- Born in College Park, Georgia. Joined the U.S. Army at 17 to see the world. Served four years



CEO

## Chris Anthony

- Founder and former CEO of Flux Power, an advanced lithium-battery technology company that launched its first products in 12 months and has reduced carbon emissions in industrial spaces by over 10,000 tons of CO<sub>2</sub> per year
- Founder of Epic Boats, a market leader in resin-infused crafts, where he used advanced CFD to design a new style of wake boat that has excelled at every level of the sport
- Has raised more than \$100m in private equity, DPO, and grant funding for technology ventures
- B.S. in Finance, University of North Carolina. Winner of three NCAA championships in track and field
- Born in Nashville. The first of his Blue Ridge Mountain family to graduate from high school





## COFOUNDER

# Michael Johnson

- Venture co-founder, owner, and president/CEO of Esenjay Petroleum, an upstream O&G exploration company based in Corpus Christi, Texas
- Co-founder, major shareholder, and director of Flux Power, a lithium-power provider
- Owner of Honey Brake Lodge, located on 20,000 acres astride Louisiana's Larto Lake, offering year-round outdoor experiences. Partner to the Natural Resources Conservation Service,
- Louisiana Wildlife & Fisheries, Louisiana State University School of Agriculture, and 4-H
- B.S. in mechanical engineering, University of Southwestern Louisiana. Graduated first in his class of the USL College of Engineering





## DESIGN

# Jason Hill

- Founder and president of Eleven LLC, a design studio whose clients include Subaru, IAT, WM China Motors, and SUNRY Automotive
- First designer at Porsche's American design studio. Designed exterior of the Porsche Carrera GT show car (basis for production version)
- Designed the Aptera Roadster's interior and exterior
- Designed Mercedes' Micro Compact Car as an EV, which formed the basis for the Smart Car brand
- B.S. in Transportation Design, Art Center College of Design, Pasadena, California



## **MECHANICAL ENGINEERING**

# Nathan Armstrong

- Founder of Motive Industries, an automotive and industrial-design firm
- VP of Engineering at Metalcrafters, Aria Group, Draganfly and Havelaar Canada
- Boeing CAD design engineer on the International Space Station
- CAD engineer on commercial aircraft, Delta rockets and the early Joint Strike Fighter Program
- Member of the advisory board for the Centre for Bioengineering Research and Education, University of Calgary
- Taught automotive engineering at ArtCenter College of Design
- Studied design technology at Orange Coast College, Costa Mesa, California



## MARKETING

# Sarah Hardwick

- Founder of Zenzi, an award-winning marketing agency that launched the original Aptera into the media spotlight and helped to build a loyal following of likeminded fans and investors.
- Nearly two decades of experience partnering with high profile brands including Nestle, Chiquita, Ghirardelli, Crystal Geyser, New Leaf Biofuel, DirecTV, TEDx, AOL, Churchill Downs.
- Developed proprietary method of using psychological customer insights to improve conversion and lift of ad campaigns.
- Navigated complex crisis situations including environmental, legal, political and product recall issues, ensuring real-time media and consumer response.
- Bachelor's degree in Communications and Marketing, University of Denver.





#### **AUTOPILOT & INTERFACE SYSTEMS**

## Brian Gallagher

- Founder of Andromeda Interfaces. Led the development of HMI and full self-driving technologies for Toyota and Kia
- Leads the design of vehicle interfaces, displays, and control systems at Aptera
- Developed HMI technologies and control systems at Illumina for the world's largest DNA-synthesizing robots
- B.S. in Electronics Engineering



#### **AERODYNAMICS**

## Miles Wheeler

- Senior Engineer at CD-Adapco, a CAE software company best known for its CFD products (acquired by Siemens)
- Chief Simulation Engineer at Aptera. Optimizes aerodynamic structures for efficiency, weight, and strength
- Built CAD models and performed structural calculations as a marine engineer
- Ph.D. in Fluid Dynamics and M.S. in Aerospace Engineering, University of Washington



#### **MECHANICAL DESIGN & SURFACING**

## Darren McKeage

- Founder of design studio Keage Concepts
- Co-founder and VP of Design, Motive Industries. Offers complete design services to automotive manufacturers
- Designed a robotics line for Genesis Robotics, the Bison EV pickup truck, and a supercar for Will.i.am
- M.A. in Automotive Design, Coventry University; B.D., Alberta College of Art and Design



#### **VISUAL DESIGN & ANIMATIONS**

## Uldis Stipnieks

- Founder of US Animated, a graphic design and animation studio
- Fluent media artist, animator, and graphic designer for social and print marketing
- Market development campaigns for Iron Mountain, HSBC, Greencore, Etisalat, and Cisco
- B.A. in Graphic Design, Baltic International Academy in Latvia



# Aptera Design

Additional information available upon request.





